

DOCUMENT 00912

ADDENDUM NUMBER 2

Issued: June 8, 2006

Tertiary Treatment Plant Upgrade

FROM: Sonoma Valley County Sanitation District
PO Box 11628
Santa Rosa, CA 95406-1628

TO: Prospective Bidders

This Addendum forms a part of and modifies the Project Manual dated May 2006. Bidder shall acknowledge receipt of this Addendum in the space provided in Document 00400 (Bid Form).

Modified text is indicated as follows: Double-underline designates text to be inserted; ~~strikethrough~~ designates text to be deleted.

Addendum Number 2 consists of 10 pages (size 8 ½" x 11") and 2 revised Drawings.

I. General Changes

A. None.

II. Changes to Prior Addenda

A. None.

III. Changes to Introductory Information and Bidding Requirements

A. Document 00320 (Geotechnical Information and Existing Conditions):

1. Modify Paragraph 2.D.5 as follows:

5. SVCSD ~~SCADA~~HMI Control System Screen Examples

2. Insert the following after Paragraph 2.D.5:

6. Document 00660 (Substitution Request Form) from Kruger Inc., including submittal package and Owner's response.

IV. Changes to Contracting Requirements

A. No changes.

V. Changes to Conditions of the Contract

A. No changes.

VI. Changes to Specifications**A. Section 01420 (References and Definitions):**

1. Modify Paragraph 1.5B.60. (page 11) as follows:
Project Record Documents: All Project deliverables required under Sections 01700 et seq., including without limitation, as-built drawings; Project Record Specifications; Installation, Operation, and Maintenance Manuals; and Machine Inventory Sheets.

B. Section 01780 (Project Record Documents):

1. Insert the following after Paragraph 1.1A.1.a. and re-number accordingly:
 - b. Project Record Specifications
2. Insert the following after Paragraph 1.2A.1. and re-number accordingly:
 2. Marked-up copies of Specifications
3. Insert the following after Paragraph 1.4 and re-number accordingly:

1.5 PROJECT RECORD SPECIFICATIONS

- A. During the construction period, maintain one copy of the Specifications, including Addenda and Modifications issued, for Project Record Documents purposes.
- B. Mark the Project Record Specifications to indicate the actual installation where the installation varies substantially from that indicated in Specifications issued. Note related Project Record Drawing information, where applicable. Give particular attention to substitutions, selection of product options, Change Order and CCD Work, and information on concealed installation that would be difficult to identify or measure and record later.
 1. In each Specification Section where products, materials or units of equipment are specified or scheduled, mark the copy with the proprietary name and model number of the product furnished.
 2. Record the name of the manufacturer, catalog number, supplier and installer, and other information necessary to provide a record of selections made and to document coordination with Installation, Operation, and Maintenance Manuals.
 3. For each principal product specified, indicate whether data has been submitted in Installation, Operation, and Maintenance Manuals.
- C. Preparation of Project Record Specifications: Immediately prior to inspection for Certification of Substantial Completion, review completed Field Set Project Record Specifications with Owner. When authorized, prepare final Project Record Specifications.
 1. After Substantial Completion and before Final Completion, carefully transfer all data shown on the Field Set to a separate clean set of Specifications provided by Owner. Include the printed designation "PROJECT RECORD SPECIFICATION" in a prominent location on the Specifications.

[end of insertion]

C. Section 11210 (Tertiary Filters [Option B]):

1. Insert the following as Paragraph 1.1B.8 and renumber accordingly:
 8. Section 15103 (Butterfly Valves)

2. Modify Paragraph 2.3F.1. as follows:
Each backwash/sludge discharge assembly shall include an external piping assembly, backwash system assembly and two backwash pumps (per filter – 8 total). Each backwash/sludge discharge assembly shall include an external piping assembly, backwash system assembly and two backwash pumps. The external piping assembly shall include backwash valves, ~~two~~ one 3 IN and one 4 IN electrically actuated recirculation ball valves, 3 inch manually operated bronze gate valve for flow control, 0-30 inches mercury vacuum gauge, pressure gauge. The recirculation ball valves shall be 2 piece, flanged end, ASTM A351 Grade CF8M stainless steel body, 316 stainless steel ball and stem, fullport, with a 115 volt, 1 phase, 60 cycle open/close service electric actuator. Valve/actuator combination shall be manufactured by TCI/Nibco, Milwaukee or Approved Equal. The backwash assembly shall include 304 stainless steel backwash shoe supports with end springs, UHMW backwash shoes, wire reinforced flexible hose, and 304 backwash manifold with stainless steel hose clamps and a PVC sludge collection manifold.
3. Modify Paragraph 2.3G.1. as follows:
Each filter shall include one influent valve. Valve shall be 18 inch ~~lugged style influent butterfly valve in accordance with Section 15103 (Butterfly Valves).~~ with a cast iron body, aluminum bronze disk, stainless steel shaft and EPDM seat. Each valve shall be provided with a 480 volt, three phase ~~115 volt, single phase~~, 60 cycle electric actuator. ~~Valve/actuator combination shall be manufactured by Nibco or Approved Equal.~~ Valve actuator shall include a compartment heater and thermostat, with limit switch feedback to the microprocessor in both the open and closed positions.

D. Section 11212 (Tertiary Filters [Option C]):

1. Add the following to the end of Paragraph 1.4.A.:
Owner will furnish to the Contractor all AutoCAD drawings used to prepare the Bid Documents. At a minimum, the drawings (whether designated “A” or “B”) requiring revision would be: G-4, C-3, C-4, C-5, C-6, C-7, C-11, SP-4, SP-5, SP-6, SP-7, SP-8, SP-9, SP-10, SP-11, SP-16, E-3, E-4, E-5, E-6, and E-9.
2. Insert the following as Paragraph 1.4.E.:
E. Operational functionality of these tertiary filtration systems includes but is not limited to the following:
 1. Continuous metering of backwash return.
 2. Ability to isolate each filtration cell and recirculate a chemical solution through or across the filter media of the isolated cell while all other filtration cells remain in service.
3. Insert the following as Paragraph 2.1 and renumber accordingly:
2.1 ACCEPTABLE MANUFACTURERS
 - A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:
 1. Kruger, Inc.

E. Section 11354 (Chlorination Equipment):

1. Insert the following as Paragraph 1.4B:
B. Existing Equipment:
 1. Wallace and Tiernan chlorinator model number V2020; serial number BD 00515
 2. Wallace and Tiernan sulfonator model number V2020; serial number BD 00516

F. Section 13442 (Primary Elements and Transmitters):

1. Change Paragraph 2.3A.1.a. to read: "Siemens SITRANS L MultiRanger 200 and SITRANS Probe LU."
2. Modify Paragraph 2.3A.4. Schedule, as follows:

TAG NUMBER	SERVICE	DEPTH TO MAXIMUM LIQUID SURFACE, FEET	RANGE	MOUNT	NOTES
FE/FIT-805	CCT Effluent Channel Flow	2	0-12,000 GPM (0-24 inches)	See detail	MultiRanger 200 Mini Ranger weir gate level (weir 41-1/4 inches wide)
LE/LIT-806	Filter Influent Pump Wetwell	2	0-15 feet	See detail	<u>SITRANS Probe LU</u> Sitrans L
LE/LIT-807	CHM1 Tank	2	0-12 feet	6 inch Flange	<u>SITRANS Probe LU</u> Sitrans L
LE/LIT-808	CHM2 Tank	2	0-12 feet	6 inch Flange	<u>SITRANS Probe LU</u> Sitrans L

G. Section 13448 (Control Panels and Enclosures):

1. Modify Paragraph 2.4E.21. as follows:
 21. Wire lugs to be full ring type and shall be used where connection points are not suitable for direct wire connection.

H. Section 13500 (Programmable Logic Controller [PLC] Control System):

1. Delete Paragraph 2.3C.4.f. in its entirety.

I. Section 15115 (Water Control Gates):

1. Insert the following after Paragraph 2.1A.2.c. and renumber accordingly:
 - d. Golden Harvest (Model GH-46).
2. Delete Paragraph 2.3A.1. in its entirety and renumber accordingly.
3. In Paragraph 3.2A. schedule, water control gate ID# SG-201, change type from "Sluice" to "Slide."

VII. Changes to Drawings

A. Drawing Number G-1 (Sheet Number 1), list of drawings:

1. Change Sheet Number "18" to "18A"

B. Drawing Number C-4B (Sheet Number 15B), Partial Site – Piping Plan:

1. At coordinate H7: Change "6" BWR" pipe service callout to "10" BWR"

C. Drawing Number C-4B (Sheet Number 15B), BWR Connection Detail:

1. Change Detail title from "6" BWR CONNECTION DETAIL" to "10" BWR CONNECTION DETAIL"
2. At coordinate J10: Change "6" BWR" pipe service callout to "10" BWR"
3. At coordinate I8: Change "6" PLUG VALVE WITH RISER" to "10" PLUG VALVE WITH RISER"
4. At coordinate I7: Change "6" 90° MJ ELBOW" to "10" 90° MJ ELBOW"

5. At coordinate K7: Change “16 x 6 CEMENT MORTAR LINED ...” to “16 x 10 CEMENT MORTAR LINED ...”
- D. Drawing Number C-5B (Sheet Number 16B):
 1. At coordinate M9: Change “6” BWR” pipe service callout to “10” BWR”
- E. Drawing Number C-6B (Sheet Number 17B):
 1. Replace Drawing in its entirety with reissued Drawing C-6B, attached
- F. Drawing Number C-7B (Sheet Number 18B):
 1. At coordinate A1: Change “6” BWR” pipe crossing callout to “10” BWR”
- G. Drawing Number SP-4B (Sheet Number 26B):
 1. At coordinate C4: Change “3” BWR” pipe service callout to “4” BWR”
 2. At coordinate G4: Change “3” BWR” pipe service callout to “4” BWR”
 3. At coordinate J4: Change “6” BWR” pipe service callout to “10” BWR”
 4. At coordinate B3: Remove check valve shown on BWR pipe
 5. At coordinate D3: Remove check valve shown on BWR pipe
 6. At coordinate F3: Remove check valve shown on BWR pipe
 7. At coordinate H3: Remove check valve shown on BWR pipe
- H. Drawing Number SP-5B (Sheet Number 27B):
 1. At coordinate E7: Change “3” BW” pipe service callout to “3” BWR”
 2. At coordinate E2: Change “3” BW” pipe service callout to “3” BWR”
 3. At coordinate J4: Change “6” BWR” pipe service callout to “10” BWR”
 4. At coordinate C3: Remove check valve shown on BWR pipe
 5. At coordinate D3: Remove check valve shown on BWR pipe
 6. At coordinate F3: Remove check valve shown on BWR pipe
 7. At coordinate H3: Remove check valve shown on BWR pipe
- I. Drawing Number SP-6B (Sheet Number 28B):
 1. At coordinate C4: Remove check valve shown on BWR pipe
 2. At coordinate D4: Remove check valve shown on BWR pipe
 3. At coordinate G4: Remove check valve shown on BWR pipe
 4. At coordinate H4: Remove check valve shown on BWR pipe
- J. Drawing Number SP-7B (Sheet Number 29B):
 1. At coordinate D2: Add a gate valve on the vertical run of 3” BWR discharge pipe from BWP-2B
 2. At coordinate E3: Delete gate valve shown on the horizontal run of 3” BWR; delete “ISOLATION VALVE” callout
- K. Drawing Number SP-8B (Sheet Number 30B):
 1. Replace Drawing in its entirety with reissued Drawing SP-8B, attached

VIII. Question(s)/Answer(s)

Owner's responses to Bidder questions shall be for the purposes of interpretation and clarification of the Contract Documents only, and shall not be construed as changing, superseding, or contradicting any express term in the Contract Documents. If any Bidder believes that a response to a question warrants a change in any term in the Contract Documents, the Bidder shall so request the change be made in writing addressed to Owner and received no later than the latest date for submitting Bidder questions. In the absence of a change in any

term of the Contract Documents, the express terms of the Contract Documents shall have precedence. Bidder questions are listed below verbatim.

A. Aqua-Aerobic Systems, Inc.:

1. Reference: Section 11210, Page 11210-3

2.2 Performance and design requirements.

B. Performance specification

Aqua's Exception/Clarification

Please refer to California Code of Regulations, Title 22 Social Security, Division 4 Environmental Health, Chapter 3 Water Recycling Criteria, Article 3 Uses of Recycled Water, Section 60304 Use of Recycled water for Irrigation. This influent NTU requirement also holds true for Sections 60305 (impoundments), 60306 (cooling) and 60307 (other uses). Therefore, please add the following sentence at the end of Section 11210-3, 2.2B.3.

The maximum filter influent turbidity at any time shall not exceed 10 NTU.

Owner's response: Bid per Bidding Documents.

2. Reference: Drawing No. 26B, 30B of 64

Alternative "B" Filter Complex

Plan @ Elev. 20.00

3", 6" BWR and MAG flow

Aqua's Exception/Clarification

The situation that all backwash pumps running at one time can happen and backwash discharge piping shall be design to accommodate all pumps running at one time. Please revise backwash discharge pipes as follows:

4" BWR for 2 pumps,
6" BWR for 4 pumps,
10" BWR for 8 pumps.

Please confirm MAG flow is supplied by installing contractor.

Owner's response: Answered in this Addendum above.

3. Reference: Drawing No. 29B, 30B, 51B of 64

Alternative "B" Filter Complex

Sections and details B

Backwash pump discharge valve:

Check valves
Recirculation valves
Isolating valve

Aqua's Exception/Clarification

Due to the positive shut off of the backwash ball valves and the internal check valve of self priming backwash pumps, the external check valves for backwash discharge pipes would be the second check valve in the backwash system (internal check valve inside

the pump and another check valve external). Please delete the external check valves or please confirm if it is required.

Please confirm recirculation valves are manual ball valve as shown in filter specification section 11210-4, F. Due to the frequency of use (probably once or twice a year), AAS does not recommend recirculation valves to be electrical actuated. The drawings 29B, 30B and 51B of 64 indicate electric actuator recirculation ball valves. Please clarify which one is required.

Please confirm the isolation valves in the backwash discharge pipes in drawing 29B, 30B are gate valves as specified in section 11210-4.F.1.

There are two isolation valves in the same backwash discharge pipe (pump BWP-2B, section B, drawing #30B of 64). Please delete one of the two isolation valves (redundant).

Owner's response: Answered in this Addendum above.

4. Reference: Section 01825 TRAINING, Page 2

1.7 VIDEO RECORDING

A. Owner may retain the services of a commercial videotaping service to record each training session. After taping, Owner may edit and supplement material with professionally produced graphics to provide a permanent record. Advise all manufacturers providing training that the material will be video taped.

Aqua's Exception/Clarification

A. Owner may retain the services of a commercial videotaping service to record each training session. After taping, Owner may edit and supplement material with professionally produced graphics to provide a permanent record. Advise all manufacturers providing training that the material will be video taped. A copy of the final video tape will be provided to each of these manufacturers to ensure supplement material and graphics do not inadvertently alter the original training.

Owner's response: Bid per Bidding Documents.

5. Reference: Section 13500 PROGRAMMABLE LOGIC CONTROLLER (PLC) CONTROL SYSTEM, Page 1

PART 1 – GENERAL

1.2 REFERENCES

F. ISO 9001

Aqua's Exception/Clarification

Please confirm if ISO 9001 is for PLC hardware.

Please note that PLC control programing is not in compliance with ISO9001 and can be provided per the filter manufacturer's Quality Control Manual instead. Please confirm if the manufacturer's quality control manual in lieu of ISO9001 is acceptable.

Owner's response: Bid per Bidding Documents.

6. Reference: Section 15103 BUTTERFLY VALVES, Page 1

PART 2 –PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Subject to compliance with the Contract Documents, the following manufacturers are acceptable:

Aqua's Exception/Clarification

Nibco filter influent valves specified in the Filter Section 11210-2.3-G are not listed in Section 15103 as one of acceptable manufacturers. Neither are they AWWA C504. Please clarify if Nibco valves are acceptable.

Owner's response: Answered in this Addendum above.

7. Reference: Section 11210 TERTIARY FILTERS (OPTION B), Page 2

PART 1 – GENERAL

1.3 SYSTEM DESCRIPTION

D. Per Owner's standards, incorporate control of all other system controls under this contract into the Main Control Panel.

Aqua's Exception/Clarification

Please confirm if the filter manufacturer shall supply the main control panel which incorporates control of all other systems/equipment not supplied by the filter manufacturer.

Owner's response: Bid per Bidding Documents.

8. Reference: PLAN DRAWING E-48B

SHEET NO. 50B OF 64

ALTERNATIVE 'B" ONE-LINE DIAGRAM AND PANELBOARD SCHEDULE

Filter Influent Valves are indicated to be 3 Phase.

Aqua's Exception/Clarification

Please clarify that Filter Influent Valves are Single Phase or 3 phases. Specification section 11210-5. 2.3. G.1 indicates single phase influent valves but 3 phase influent valves are shown in drawing sheet 50B of 64.

Owner's response: Answered in this Addendum above.

9. Reference: Section 11210 TERTIARY FILTERS (OPTION B), Page 6

PART 2 – PRODUCTS

2.3 MATERIALS M.2.d

Input cards shall be 16 point 120 volt

Aqua's Exception/Clarification

This does not match the requirement in Spec 13500 page 5 for 16 point DC Input modules

Owner's response: Answered in this Addendum above.

10. Reference: Section 11210 TERTIARY FILTERS (OPTION B), Page 6**PART 2 – PRODUCTS****2.3 MATERIALS M.2.e**

Output Cards shall be 16 point relay rated

Aqua's Exception/Clarification

This does not match the requirement in Spec 13500 page 5 for 16 point DC Output modules

Owner's response: Answered in this Addendum above.

11. Reference: Section 13448 CONTROL PANELS AND ENCLOSURES, Page 4**PART 2 – PRODUCTS****2.4 FABRICATION 2.4.E.18**

Identify all wires with plastic sleeve type (heat-shrinkable) wire markers at each end.

Aqua's Exception/Clarification

AAS will use self-adhesive, wrap-on style, printed markers.

Owner's response: Bid per Bidding Documents.

12. Reference: Section 13448 CONTROL PANELS AND ENCLOSURES, Page 4**PART 2 – PRODUCTS****2.4 FABRICATION 2.4.E.20.j**

Utilize busses for DC and AC control voltages within panel.

Aqua's Exception/Clarification

AC and DC control voltages will be distributed using terminals.

Owner's response: Bid per Bidding Documents.

13. Reference: Section 13448 CONTROL PANELS AND ENCLOSURES, Page 4**PART 2 – PRODUCTS****2.4 FABRICATION 2.4.E.21**

Wire lugs to be full ring type.

Aqua's Exception/Clarification

Please clarify where these are to be used.

Owner's response: Answered in this Addendum above.

B. RGW Construction:

1. As per our conversation, we have decided to submit our qualifications to you for your review. We are submitting this information in response to Section 00450 of the Contract Documents. Attached you will find resumes/experience of the key treatment plant personnel. Technically, RGW Construction does not meet the requirements of past project experience. The RGW plant personnel do meet your requirement of tertiary treatment experience. Past projects with tertiary filters include Nevada City WWTP, Angels Camp WWTP and Shelter Cove WWTP.

RGW Construction, Inc. has been in business since 1990. Our annual volume over the past several years has averaged around \$100 million. In 2005, the treatment plant division was formed. Our experience covers many areas in the heavy construction arena, including small treatment plants, pumping plants, bridges, highways, grading and paving. Our safety record over the past several years is shown on the attached documentation with our 'mod rate' of less than 1.0.

This new division was formed with the anticipation of obtaining and performing \$10-\$20 million in annual volume of water and wastewater treatment and pumping plant work. My experience covers over 25 years in the treatment plant and water industry. This division also includes a project manager with 25 years in the treatment plant industry and a superintendent with 20 years experience in this industry. In addition, we can draw from the experience and financial strength of RGW Construction, Inc.

We await your response regarding your interpretation of the above referenced specification section.

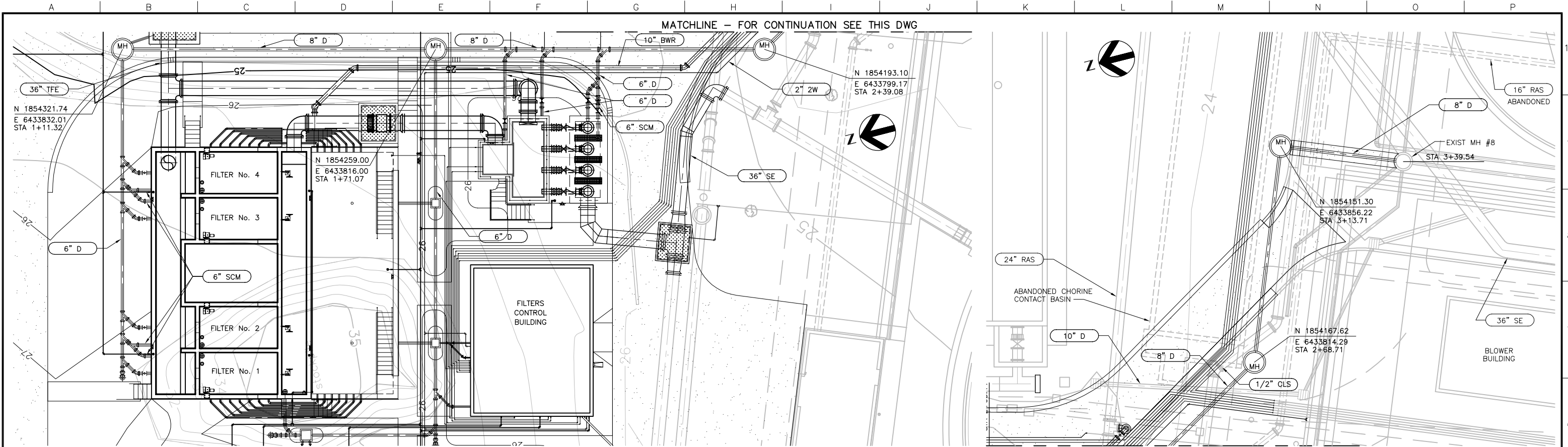
Owner's response: Bid per the Bidding Documents.

C. G3 Engineering Inc.:

1. Wallace & Tiernan will be supplying the new Chlorinator, but they asked for the s/n of the existing Wallace & Tiernan evaporator and other equipment that needs to be upgraded by the manufacturer.

Owner's response: Answered in this Addendum above.

END OF DOCUMENT

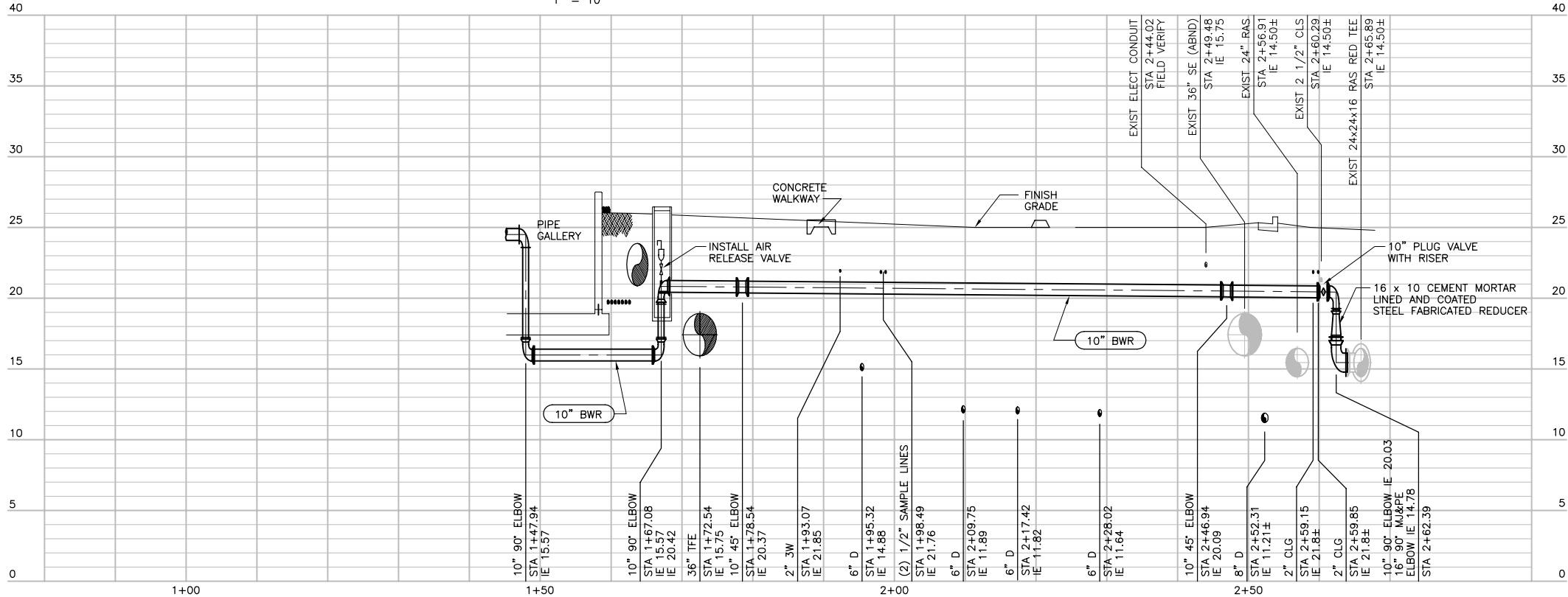


PLAN

1" = 10'

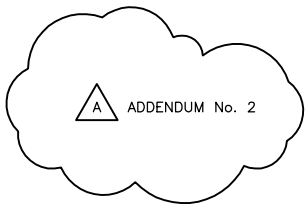
PLAN

1" = 10'



ALTERNATIVE "B" 10" BACKWASH RETURN PROFILE

HORIZ: 1" = 10'
VERT: 1" = 5'



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NO.	DATE	REVISION	BY
A	6-7-06	RE-ISSUED SHEET PER ADDENDUM No. 2	CAO

SONOMA VALLEY COUNTY
SANITATION DISTRICT

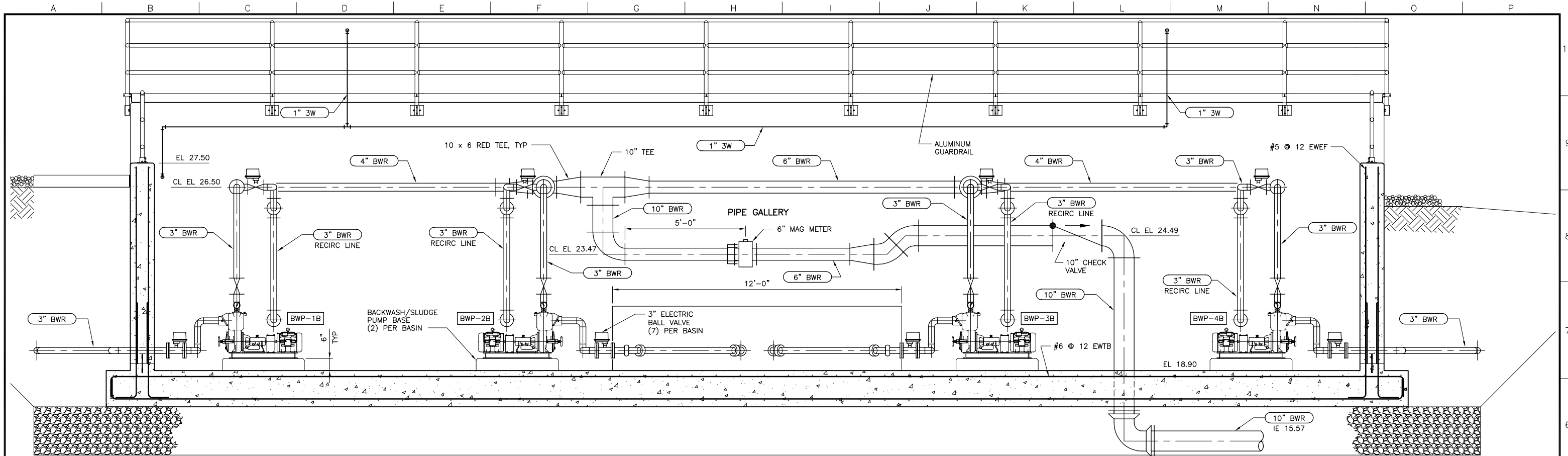
SCALE: AS NOTED	APPROVED DEPUTY CHIEF ENGINEER RCE 48341
DATE: APRIL 2006	SUBMITTED RCE 46862
DRAWN: B. DOWN	DESIGNED RCE 39819
CHECKED: R. WILLIAMS	C. OLSON/J. REIL RCE 51785

TERTIARY TREATMENT PLANT UPGRADE
ALTERNATIVE "B" 10" BACKWASH RETURN
PLAN AND PROFILE

70-12-102.417

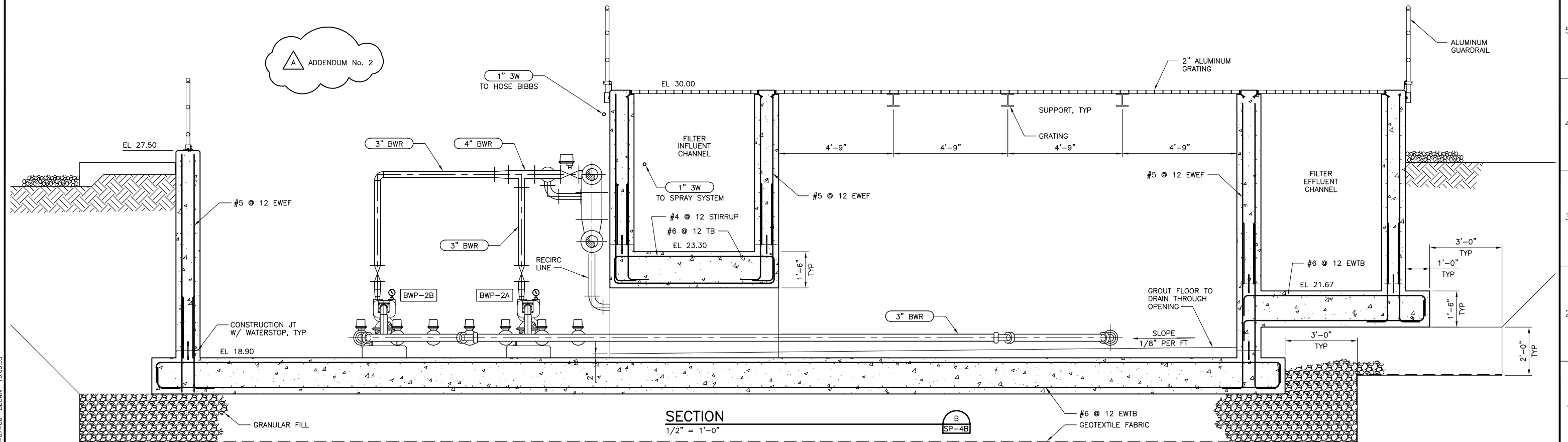
DRAWING NUMBER C-6B

SHEET NO. 17B OF 64



SECTION
1/2" = 1'-0"

A
SP-4B



SECTION
1/2" = 1'-0"

B
SP-4B

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06-07-06 BDOWN 16:00:35

HDR
HDR Engineering, Inc.



NO.	DATE	REVISION	BY
A	6-7-06	RE-ISSUED SHEET PER ADDENDUM No. 2	CAO

**SONOMA VALLEY COUNTY
SANITATION DISTRICT**

SCALE: AS NOTED
DATE: APRIL 2006
DRAWN: J.SPORE
CHECKED: R. WILLIAMS

APPROVED DEPUTY CHIEF ENGINEER RCE 48341
SUBMITTED: RCE 46862
DESIGNED: RCE 39819
C. OLSON/J. REIL RCE 51785

**TERTIARY TREATMENT PLANT UPGRADE
ALTERNATIVE "B" FILTER COMPLEX -
SECTIONS AND DETAILS I**

70-12-102.429

DRAWING NUMBER **SP-8B** SHEET NO. **30B** OF **64**